

REGIONAL WORKFORCE ACCESSIBILITY AND MOBILITY

**Policy Committee
October 11, 2019**

ACTION REQUESTED

No action is being requested. This item is being presented for information and discussion.

PREVIOUS ACTION

Presentation of information regarding the mismatch between workers' home and employers locations

TWO DIMENSIONAL APPROACH

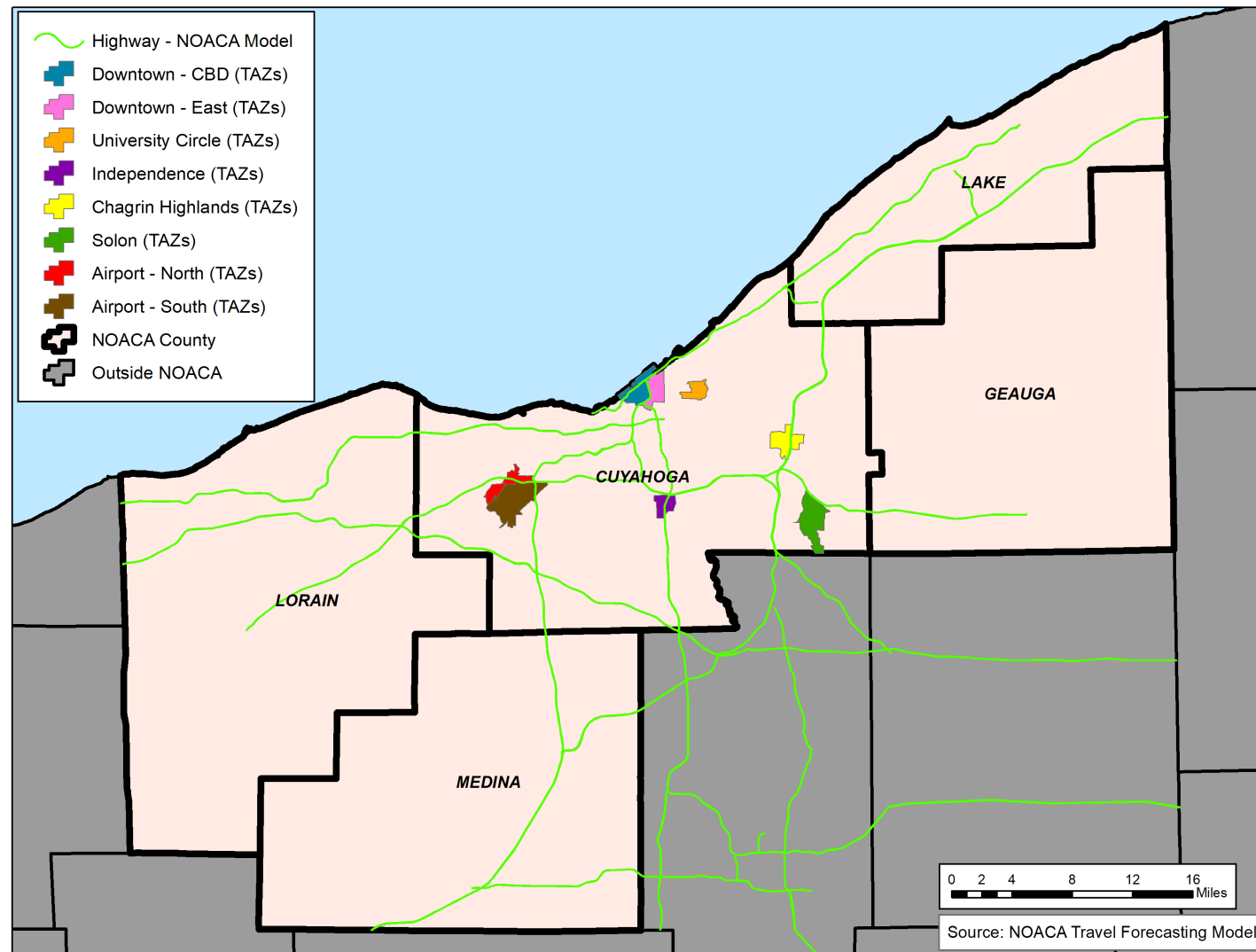
1. Geography Level

- COUNTY
- ZIP CODE
- TRAFFIC ANALYSIS ZONE

2. Time (Travel Time)

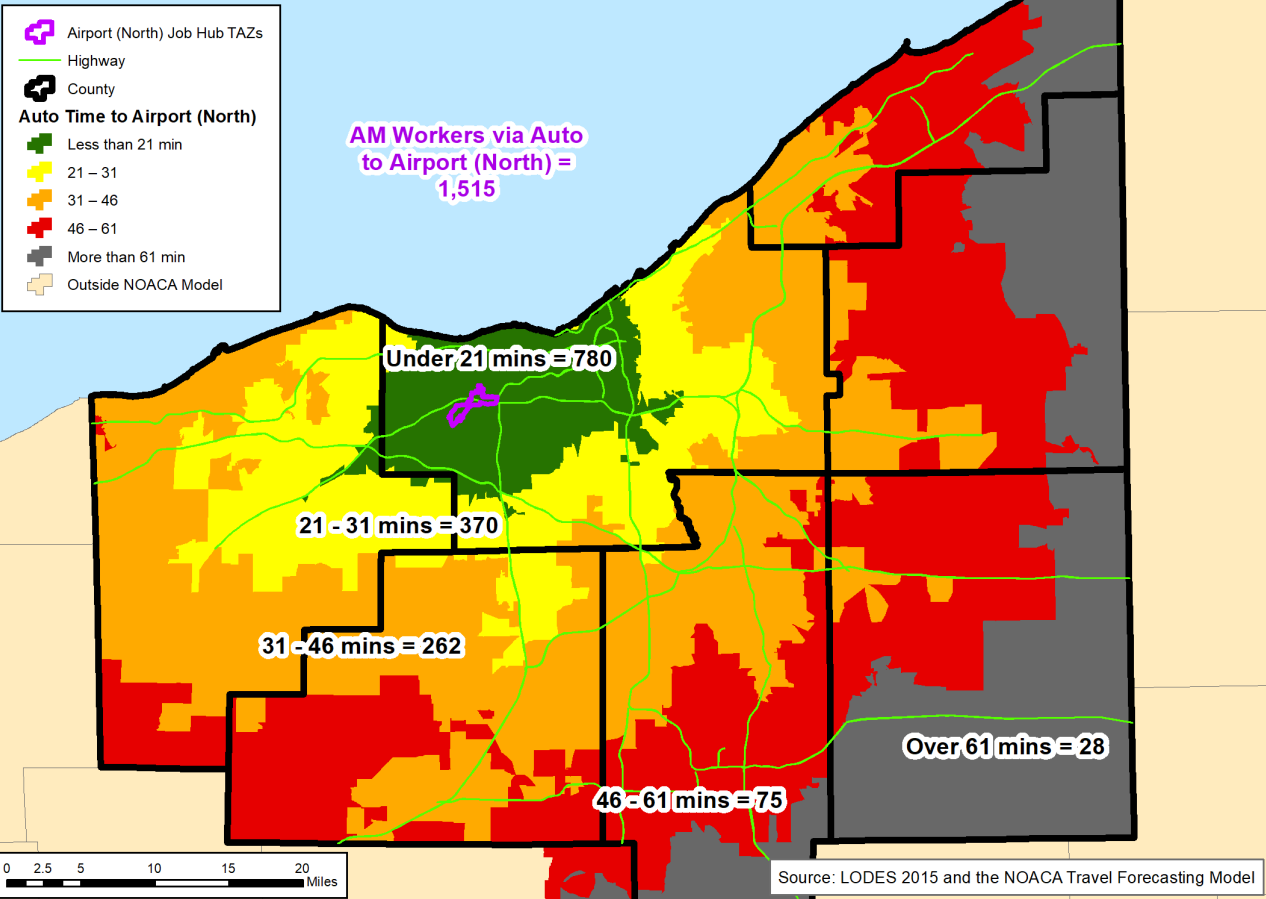
MAJOR REGIONAL JOB HUBS (TAZ LEVEL)

Job Hubs
attracting
workers
from all the
NOACA
Counties

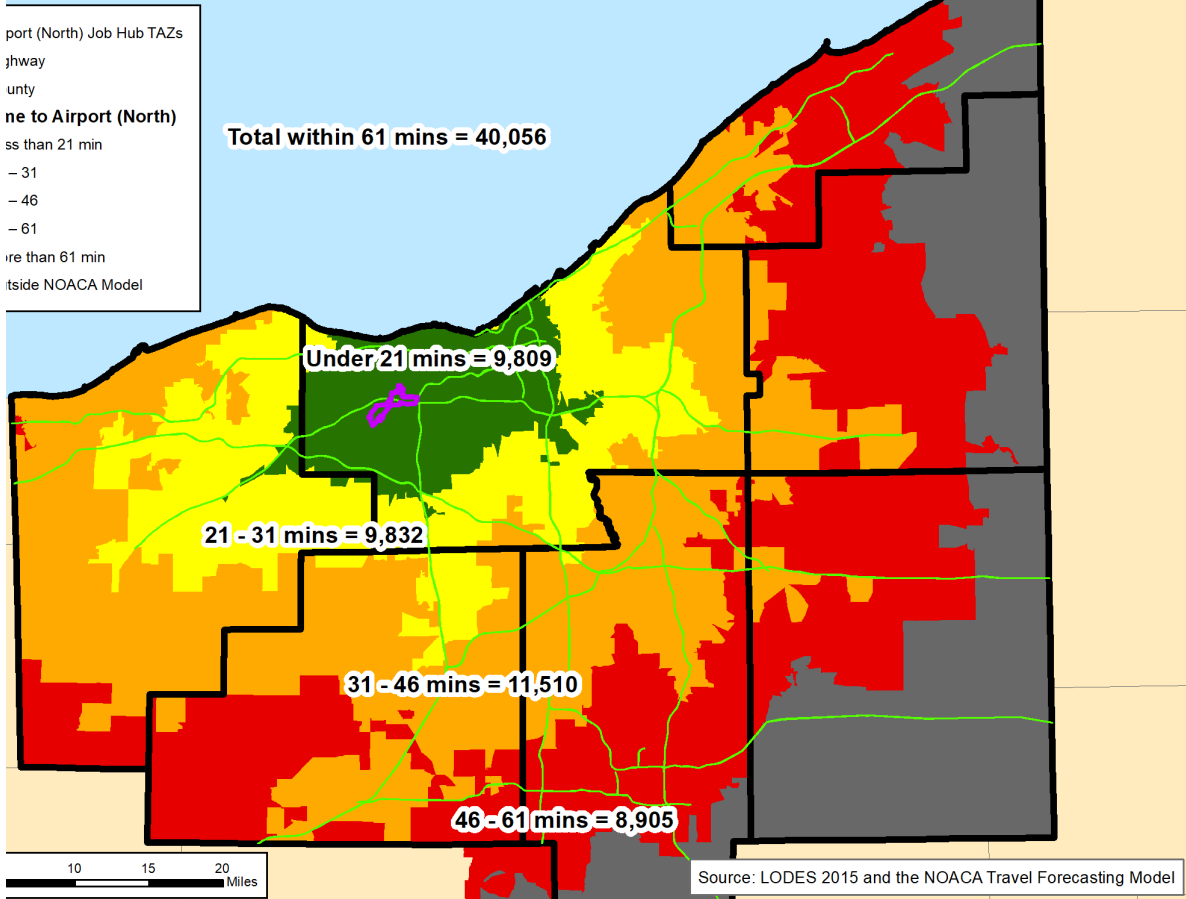


PUBLIC ADMIN. WORKERS ORIGIN AND AUTO ACCESSIBILITY COMPARISON

Home-to-Work Travel by Auto for Public Administration Workers to Airport (North) Job Hub



Accessibility for Public Administration Workers from Home TAZ to Airport (North) Job Hub



BENEFIT ESTIMATION ANALYSIS

- Regional Major Job Hubs
- Total Workers in each Job Hub
- Industry Class with the Highest Percent of Employment Total in each Job Hub



SELECTED INDUSTRY CLASS

Job Hub	Industry Class With the Highest Percent of Employment Total
Cleveland Downtown (CBD)	Professional, Scientific & Technical Services and Public Administration (37.2%)
Cleveland Downtown East	Health Care (22.2%)
University Circle	Health Care (72.8%)
Independence	Administrative, Support & Waste Management Services (29.2%)
Chagrin Highlands	Health Care (16.4%)
Solon	Manufacturing (36.8%)
Airport North	Public Administration (42%)
Airport South	Transportation & Warehousing (37.1%)

CURRENT & AVAILABLE WORKERS RATIOS - AUTO

		JOB HUBS - INDUSTRY CLASS WITH THE HIGHEST PERCENT OF EMPLOYMENT TOTAL							
		Downtown (CBD)	Downtown (East)	Airport (North)	Airport (South)	Solon	University Circle	Chagrin Highlands	Independence
AUTO AM COMMUTES		Professional, Scientific & Technical Services and Public Administration (37.2%)	Health Care (22.2%)	Public Administration (42%)	Transportation & Warehousing (37.1%)	Manufacturing (36.8%)	Health Care (72.8%)	Health Care (16.4%)	Administrative, Support & Waste Management Services (29.2%)
<div><div></div><div></div></div>	Under 21 min								
	Currently Working There	9,481	1,552	780	1,361	2,276	15,771	1,062	2,888
	Available Workers	25,235	62,076	9,809	10,213	12,746	47,595	44,855	20,431
	Ratio	37.6%	2.5%	8.0%	13.3%	17.9%	33.1%	2.4%	14.1%
	21-31 min								
	Currently Working There	4,423	696	370	650	1,741	6,121	632	1,513
	Available Workers	25,290	41,673	9,832	8,482	28,792	41,464	49,606	15,473
	Ratio	17.5%	1.7%	3.8%	7.7%	6.0%	14.8%	1.3%	9.8%
	31-46 min								
	Currently Working There	3,716	622	262	559	1,785	5,112	401	1,497
	Available Workers	30,080	49,177	11,510	11,091	51,932	44,734	48,598	26,698
	Ratio	12.4%	1.3%	2.3%	5.0%	3.4%	11.4%	0.8%	5.6%
	46-61 min								
	Currently Working There	1,484	249	75	161	913	2,275	202	502
	Available Workers	24,390	44,485	8,905	7,038	50,964	51,600	54,327	9,923
	Ratio	6.1%	0.6%	0.8%	2.3%	1.8%	4.4%	0.4%	5.1%
	Over 61 min								
	Currently Working There	631	94	28	47	209	1,272	56	69
Available Workers	5,078	8,117	2,276	1,370	10,681	20,135	8,142	660	
Ratio	12.4%	1.16%	1.23%	3.43%	1.96%	6.3%	0.69%	10.45%	

CURRENT & AVAILABLE WORKERS RATIOS - AUTO

	JOB HUBS - INDUSTRY CLASS WITH THE HIGHEST PERCENT OF EMPLOYMENT TOTAL							
	Downtown (CBD)	Downtown (East)	Airport (North)	Airport (South)	Solon	University Circle	Chagrin Highlands	Independence
AUTO AM COMMUTES	Professional, Scientific & Technical Services and Public Administration (37.2%)	Health Care (22.2%)	Public Administration (42%)	Transportation & Warehousing (37.1%)	Manufacturing (36.8%)	Health Care (72.8%)	Health Care (16.4%)	Administrative, Support & Waste Management Services (29.2%)
 Under 21 min Currently Working There Available Workers Ratio Example of Increased Ratio	9,481	1,552	780	1,361	2,276	15,771	1,062	2,888
	25,235	62,076	9,809	10,213	12,746	47,595	44,855	20,431
	37.6%	2.5%	8.0%	13.3%	17.9%	33.1%	2.4%	14.1%
	39.0%	3.1%	9.00%	14.3%	19.00%	35.0%	3.00%	15.1%
21-31 min Currently Working There Available Workers Ratio Example of Increased Ratio	4,423	696	370	650	1,741	6,121	632	1,513
	25,290	41,673	9,832	8,482	28,792	41,464	49,606	15,473
	17.5%	1.7%	3.8%	7.7%	6.0%	14.8%	1.3%	9.8%
	19.5%	2.00%	4.50%	9.0%	7.75%	16.00%	1.44%	11.00%
 31-46 min Currently Working There Available Workers Ratio Example of Decreased Ratio	3,716	622	262	559	1,785	5,112	401	1,497
	30,080	49,177	11,510	11,091	51,932	44,734	48,598	26,698
	12.4%	1.3%	2.3%	5.0%	3.4%	11.4%	0.8%	5.6%
	10.50%	0.50%	1.40%	4.00%	2.5%	10.00%	0.30%	4.64%
46-61 min Currently Working There Available Workers Ratio Example of Decreased Ratio	1,484	249	75	161	913	2,275	202	502
	24,390	44,485	8,905	7,038	50,964	51,600	54,327	9,923
	6.1%	0.6%	0.8%	2.3%	1.8%	4.4%	0.4%	5.1%
	5.20%	0.29%	0.30%	1.30%	1.70%	3.52%	0.26%	4.00%
Over 61 min Currently Working There Available Workers Ratio Example of Decreased Ratio	631	94	28	47	209	1,272	56	69
	5,078	8,117	2,276	1,370	10,681	20,135	8,142	660
	12.4%	1.16%	1.23%	3.43%	1.96%	6.3%	0.69%	10.45%
	10.54%	0.99%	0.08%	1.40%	0.994%	4.811%	0.073%	7.00%

SUMMARY – SELECTED INDUSTRY CLASS

- **Industry Class with the Highest Percent of Employment Total in each Job Hub**
- **Total Number of Available Workers for the Selected Industry Classes: 582,095**
- **Total Number of Current Workers : 73,538**
- **Total Number of Living or Working Location Changes: 4,556 (0.78%)**

SUMMARY – SELECTED INDUSTRY CLASS

- **In a Typical AM peak Period**
- **Total Work Travel Times is Reduced by 2,032 Hours**
- **Total Delay as a measure of Congestion is Reduced by 448 Hours**
- **Total Work Travel Time Costs is Reduced by \$24,331 (2018\$)**
- **Total Congestion Cost is Reduced by \$5,347 (2018\$)**
- **Total VMT is Reduced by 92,416 Miles**
- **Total Fuel Consumption is reduced by 4,044 Gallons (Assuming 22.9 MPG)**
- **Total Fuel Cost is Reduced by \$10,515 (2018 \$ & Assuming Fuel Cost of \$2.6 per Gallon)**

SUMMARY – SELECTED INDUSTRY CLASS

- **Annually (AM Peak Periods)**
- **Total Work Travel Times is Reduced by 508,000 Hours**
- **Total Delay as a measure of Congestion is Reduced by 112,000 Hours**
- **Total Work Travel Time Costs is Reduced by \$6,082,000 (2018\$)**
- **Total Congestion Cost is Reduced by \$1,336,000 (2018\$)**
- **Total VMT is Reduced by 23,153,000 Miles**
- **Total Fuel Consumption is reduced by 1,011,000 Gallons (Assuming 22.9 MPG)**
- **Total Fuel Cost is Reduced by \$2,628,000 (2018 \$ & Assuming Fuel Cost of \$2.6 per Gallon)**

CURRENT & AVAILABLE WORKERS RATIOS - AUTO

	JOB HUBS - ALL INDUSTRY CLASSES							
	Downtown (CBD)	Downtown (East)	Airport (North)	Airport (South)	Solon	University Circle	Chagrin Highlands	Independence
AUTO AM COMMUTES	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)	Total Workers (100%)
Under 21 min								
Currently Working There	28,667	5,961	2,234	3,619	5,214	19,416	5,438	6,614
Available Workers	272,538	303,153	262,014	280,669	116,386	208,296	199,789	266,688
Ratio	10.5%	2.0%	0.9%	1.3%	4.5%	9.3%	2.7%	2.5%
Example of Increased Ratio	12.0%	2.61%	1.052%	1.73%	5.00%	10.3%	3.21%	2.8%
21-31 min								
Currently Working There	13,375	2,673	1,060	1,728	3,988	7,535	3,238	3,466
Available Workers	251,451	231,775	245,161	250,198	251,860	237,274	283,626	264,356
Ratio	5.3%	1.2%	0.4%	0.7%	1.6%	3.2%	1.1%	1.3%
Example of Increased Ratio	6.1%	1.70%	0.6%	0.998%	2.002%	4.20%	1.672%	1.80%
31-46 min								
Currently Working There	11,237	2,388	752	1,485	4,088	6,294	2,053	3,428
Available Workers	309,985	315,117	339,926	387,410	402,270	278,316	307,361	456,334
Ratio	3.6%	0.8%	0.2%	0.4%	1.0%	2.3%	0.7%	0.8%
Example of Decreased Ratio	2.50%	0.10%	0.031%	0.006%	0.7%	1.50%	0.06%	0.525%
46-61 min								
Currently Working There	4,487	955	214	429	2,091	2,801	1,036	1,149
Available Workers	295,561	285,833	275,271	231,196	361,420	329,951	347,985	191,476
Ratio	1.5%	0.3%	0.1%	0.2%	0.6%	0.8%	0.3%	0.6%
Example of Decreased Ratio	1.00%	0.058%	0.001%	0.003%	0.50%	0.60%	0.20%	0.101%
Over 61 min								
Currently Working There	1,907	360	80	124	478	1,566	287	158
Available Workers	64,749	58,406	71,912	44,811	62,348	140,447	55,523	15,430
Ratio	2.95%	0.62%	0.111%	0.277%	0.767%	1.115%	0.52%	1.024%
Example of Decreased Ratio	1.428%	0.007%	0.006%	0.004%	0.600%	0.027%	0.03%	0.001%



SUMMARY – TOTAL WORKERS

- **Total Number of Current Workers : 164,073**
- **Total Number of Available Workers: 1,194,284**
- **Total Number of Living or Working Location Changes: 22,912 (1.92%)**

SUMMARY – TOTAL WORKERS

- **In a Typical AM peak Period**
- **Total Work Travel Times is Reduced by 10,328 Hours**
- **Total Delay as a measure of Congestion is Reduced by 2,274 Hours**
- **Total Work Travel Time Costs is Reduced by \$112,164 (2018\$)**
- **Total Congestion Cost is Reduced by \$24,695 (2018\$)**
- **Total VMT is Reduced by 478,420 Miles**
- **Total Fuel Consumption is reduced by 20,892 Gallons (Assuming 22.9 MPG)**
- **Total Fuel Cost is Reduced by \$54,318 (2018 \$ & Assuming Fuel Cost of \$2.6 per Gallon)**

SUMMARY – TOTAL WORKERS

- **Annually (AM Peak Periods)**
- **Total Work Travel Times is Reduced by 2,582,000 Hours**
- **Total Delay as a measure of Congestion is Reduced by 568,000 Hours**
- **Total Work Travel Time Costs is Reduced by \$28,040,000 (2018\$)**
- **Total Congestion Cost is Reduced by \$6,173,000 (2018\$)**
- **Total VMT is Reduced by 119,604,000 Miles**
- **Total Fuel Consumption is reduced by 5,22,000 Gallons (Assuming 22.9 MPG)**
- **Total Fuel Cost is Reduced by \$13,579,000 (2018 \$ & Assuming Fuel Cost of \$2.6 per Gallon)**

TOTAL & COMPARISON RESULTS

Industry Class	Modified Percent	Annual Travel Time Cost Saving (2018\$)	Annual Fuel Cost Saving (2018\$)	Total Saving (2018\$)
Selected	0.78%	6,082,639	2,628,775	8,711,414
All Classes	1.92%	28,040,991	13,579,604	41,620,595
Ratio	2.5	4.6	5.2	4.8

NEXT STEPS

Staff will continue to use Committee input to further develop the workforce accessibility and mobility policy area recommendations.

Draft policy recommendations will be presented at future meetings as developed.



NOACA will **STRENGTHEN** regional cohesion, **PRESERVE** existing infrastructure, and **BUILD** a sustainable multimodal transportation system to **SUPPORT** economic development and **ENHANCE** quality of life in Northeast Ohio.

